1.932 2/26/40 I2 P96

Bureau of Agricultural Chemistry and Engineering U. S. Department of Agriculture.

## PUBLICATIONS ON FERMENTATION

LIBRARY
. RECEIVED

Industrial Farm Products Research Division

U.S. Department of Agricuture

- 1. The production of gluconic acid by the Penicillium Luteum-Purpurogenum group. I. O. E. May, H. T. Herrick, Charles Thom and Margaret B. Church. J. Biol. Chem. 75, 2, pp. 417-422 (1927).
- 2. The production of gluconic acid by the Penicillium Luteum-Purpurogenum group. II. Some optimal conditions for acid formation. H. T. Herrick and O. E. May. J. Biol. Chem. 77, 1, pp. 185-195 (1928).
- 3. Molds pressed into service in utilizing some farm products. H. T. Herrick and O. E. May. Yearbook of Agriculture, p. 464 (1928).
- 4. Molds and chemical nanufacture. H. T. Herrick and O. E. May. Ind. Eng. Chem. 21, 7, pp. 618-621 (1929).
- 5. Some physical constants of d-gluconic acid and several of its salts.

  O. E. May, S. M. Weisberg and H. T. Herrick. J. Wash. Acad. Sci. 19, 20, pp. 443-447 (1929).
- 6. Semi-plant scale production of gluconic acid by mold fermentation.
  O. E. May, H. T. Herrick, A. J. Moyer, and R. Hellbach.
  Ind. Eng. Chem. 21, 12, pp. 1198-1203 (1929).
- 7. Mold fernentations. H. T. Herrick. The News-Letter, Princeton Eng. Assoc. 10, 3, pp. 67-70 (1930).
- 8. Fermentation in food manufacture. H. T. Herrick. Food Industries. Nov. 1930, p. 488.
- 9. Symposium on industrial fermentations. Introduction by H. T. Herrick. Ind. Eng. Chem. 22, 11, p. 1148 (1930).
- 10. Some minor industrial fermentations. O. E. May and H. T. Herrick. Ind. Eng. Chem. 22, 11, pp. 1172-1176 (1930).
- 11. The production of kojic acid by Aspergillus flavus. O. E. May,
  A. J. Moyer, P. A. Wells, and H. T. Herrick. J. Amer. Chem. Soc. 53,
  2, pp. 774-782 (1931).
- 12. Some industrial fermentations. H. T. Herrick. Chem. Bull. 18, 2, pp. 35-39 (1931).
- 13. Determining chemical value of molds. H. T. Herrick and O. E. May. U. S. Daily, p. 4, May 19, 1931.

- 14. The effect of organic stimulants upon the production of kojic acid by Aspergillus flavus. O. E. May, G. E. Ward, and H. T. Herrick. Zentr. f. Bakt., Farasit. u. Infekt., II Abt. 86, pp. 129-134 (1932).
- 15. Chapter XVII. "Fermentation." O. E. May and H. T. Herrick.
  Annual Survey of American Chemistry, 7, (1932).
- 16. Production of organic acids from carbohydrates by fermentation.
  A digest of the literature. U. S. D. A. Circular No. 216.
  30 pages. May, 1932.
- 17. Gluconic acid. Production of submerged mold growths under increased air pressure. O. E. May, H. T. Herrick, A. J. Moyer, and P. A. Wells. Ind. Eng. Chem. 26, 5, pp. 575-578 (1934).
- 18. The chemical composition of the fat produced by Penicillium javanicum van Beijma. G. E. Ward and G. S. Jamieson. J. Amer. Chem. Soc. 56, 4, pp. 973-975 (1934).
- 19. The production of fat by Penicillium javanicum van Beijma. L. B. Lockwood, G. E. Ward, O. E. May, H. T. Herrick, and Hugh T. O'Neill.

  Zentr. f. Bakt., Parasit. u. Infekt. II Abt. 90, pp. 411-425 (1934).
- 20. Some practical and theoretical aspects of mold metabolism. O. E. May and H. T. Herrick. J. Bact. 28, 2, pp. 145-151 (1934).
- 21. Hydrolysis of the chitinous complex of lower fungi. O. E. May and G. E. Ward. J. Amer. Chem. Soc. 56, 7, pp. 1597-1599 (1934).
- 22. Production of fat from glucose by molds. Cultivation of Penicillium javanicum van Beijna in large-scale laboratory apparatus.

  G. E. Ward, L. B. Lockwood, O. E. May, and H. T. Herrick.

  Ind. Eng. Chem. 27, 3, pp. 318-322 (1935).
- 23. Fermentation as a factor in producing organic acids for chemical industry.

  H. T. Herrick and O. E. May. Chem. & Met. Eng. 42, 3, pp. 141-142 (1935).
- 24. Apparatus for the application of submerged mold fermentations under pressure. H. T. Herrick, R. Hellbach, and O. E. May. Ind. Eng. Chem. 27, 6, pp. 681-683 (1935).
- 25. A mucor found in fowl. N. Porges, J. F. Muller, and L. B. Lockwood. Mycologia, 27, 3, p. 330 (1935).
- 26. Fungi from laboratory reagents. L. B. Lockwood. Mycologia 28, 1, pp. 10-12 (1936).
- 27. The production of gluconic acid by Penicillium chrysogenum. A. J. Moyer, C. E. May and H. T. Herrick. Zentr. f. Bakt., Parasit. u. Infekt. II Abt. 95, pp. 311-324 (1936).

- 28. The chemistry of the citric acid fermentation. I. The carbon balance. P. A. Wells, A. J. Moyer, and O. E. May. J. Amer. Chem. Soc. 58, 4, pp. 555-558 (1936).
- 29. Biochemical studies in the Genus Rhizopus. I. The production of dextrolactic acid. G. E. Ward, L. B. Lockwood, O. E. May, and H. T. Herrick. J. Amer. Chem. Soc. 58, 7, pp. 1286-1288 (1936).
- 30. Rhizopus elegans eidam. L. B. Lockwood. Mycologia 28, 6, pp. 542-546 (1936).
- 31. The physiology of Rhizopus Oryzae. L. B. Lockwood, G. E. Ward, and O. E. May. J. Agric. Res. 53, 11, pp. 849-857 (1936).
- 32. Hydrogen ion concentration and ascus formation. L. B. Lockwood. Mycologia 29, 3, pp. 289-290 (1937).
- 33. Translating mold fermentation research to pilot plant operations. P. A. Wells, D. F. J. Lynch, H. T. Herrick and O. E. May. Chem. Met. Eng., 44, 4, pp. 188-190 (1937).
- 34. Gluconic acid production. Effect of pressure, air flow, and agitation on gluconic acid production by submerged mold growths. P. A. Wells, A. J. Moyer, J. J. Stubbs, H. T. Herrick, and O. E. May. Ind. Eng. Chem. 29, 6, pp. 653-656 (1937).
- 35. Gluconic acid production. Development of inoculum and composition of fermentation solution for gluconic acid production by submerged mold growths under increased air pressure. A. J. Moyer, P. A. Wells, J. J. Stubbs, H. T. Herrick, and O. E. May. Ind. Eng. Chem. 29, 7, pp. 777-781 (1937).
- 36. Sorbose from sorbitol. Production by submerged growths of Acetobacter suboxydans. P. A. Wells, J. J. Stubbs, L. B. Lockwood, and E. T. Roe. Ind. Eng. Chem. 29, 12, pp. 1385-1388 (1937).
- 37. The production of chemicals by filamentous fungi. L. B. Lockwood and A. J. Moyer. Botanical Review 4, 3, pp. 140-164 (1938).
- 38. The citric acid industry. P. A. Wells and H. T. Herrick. Ind. Eng. Chem. 30, 3, pp. 255-262 (1938).
- 39. Biochemical studies of some fusaria. L. B. Lockwood, J. J. Stubbs, and C. E. Senseman. Zentr.f. Bakt., Parasit. u. Infekt. II Abt. 98, pp. 167-171 (1938).
- 40. Gluconic acid production on pilot-plant scale. Effect of variables on production by submerged mold growths. E. A. Gastrock, N. Porges, P. A. Wells, and A. J. Moyer. Ind. Eng. Chem. 30, 7, pp. 782-789 (1938).

MAR 25 1940

M. H. MA

- Rapid fermentation process for dextrolactic acid. G. E. Ward, L. B. Lockwood, B. Tabenkin, and P. A. Wells. Ind. Eng. Chem. 30, 11, pp. 1233-1235. (1938).
- Fermentation processes. P. A. Wells and G. E. Ward. Ind. Eng. Chem. 31, 2, pp. 172-177 (1939).
- Sorbose from sorbitol. Semiplant-scale production by Acetobacter suboxydans. P. A. Wells, L. B. Lockwood, J. J. Stubbs, E. T. Roe, N. Porges, and E. A. Gastrock. Ind. Eng. Chem. 31, 12, pp. 1518-1521 (1939)

and the second second

Gluconic acid production. Repeated use of submerged Aspergillus niger for semicontinuous production. N. Porges, T. F. Clark, and E. A. Gastrock. Ind. Eng. Chem. 32, 1, pp. 107-111 (1940).

The state of the s

A CONTROL OF THE STATE OF THE S

A TARRER . L. V. Lindstonia . E. E. L. Lindston . C. Lindston . C

Control to the second of the s

u. I. T. Learner.

or it arrives was sentituded from the first to a section of the se

To little engage the first production to the control of the contro

A BO Warren are to deal to a contract of the c

Bureau of Agricultural Chemistry and Engineering U. S. Department of Agriculture.

## PATENTS ON FERMENTATION

Industrial Farm Products Research Division.

Number	Dave of	Subject	Inventor
1,726,067	Aug. 27 1929	Process for the manufacture of gluconic acid.	H. T. Herrick O. E. May
2,006,086	June 25 1935	Method of carrying out oxidative fermentations by molds or fungi.	O. E. May H. T. Herrick A. J. Moyer P. A. Wells
2,098,962	Nov. 16 1937	Method for carrying out aeration in biochemical processes.	Rudolph Hellbach
2,121,533	June 21 1938	Method for carrying out certain oxidative fermentation processes by bacteria.	P. A. Wells L. B. Lockwood J. J. Stubbs
2,132,712	Oct. 11 1938	Fermentation process for the manufacture of dextro-lactic acid.	G. E. Ward L. B. Lockwood O. E. May